

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Application of Southern California Edison Company
(U 338-E) for Approval of the Results of Its 2013
Local Capacity Requirements Request for Offers for
the Moorpark Sub-Area.

Application 14-11-016
(Filed November 26, 2014)

**PHASE 2 OPENING BRIEF
OF THE WORLD BUSINESS ACADEMY**

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OF THE WORLD BUSINESS ACADEMY**

Pursuant to Rule 13.11 of the Commission's Rules of Practice and Procedure, and the August 18, 2014 Second Assigned Commissioner's Ruling and Scoping Memo ("Scoping Memo"), the World Business Academy ("Academy") submits this Opening Brief on the issues addressed in the evidentiary hearings that took place in this proceeding on November 1 and 2, 2014.

I. THE ELLWOOD REFURBISHMENT CONTRACT IS NOT REASONABLE

The Testimony of Robert Perry, which the Academy submitted into evidence in those hearings and was entered into the record as Exhibit WBA-4, demonstrates persuasively that the 54 MW Ellwood Refurbishment project is neither an appropriate nor a reasonable project for the Commission to approve. This proposed facility is not the "best fit" for the densely populated and extremely transmission-constrained coastal Santa Barbara County Energy Needs Area ("Santa Barbara ENA"), which is already subject to a potentially catastrophic failure of its high-voltage transmission system. Moreover, this proposed project is located in the rapidly developing Ellwood residential area of Goleta, less than 1,000 feet away from the local elementary school. There are also large residential tracts located on both sides of the plant site that would be adversely impacted

should the plant need to operate for many more hours than originally intended due to a major failure of the single pair of 220 kV transmission lines that delivers virtually all of the energy needed by the Santa Barbara ENA from Ventura County along a narrow “finger” that protrudes westward along the coast from the rest of the Southern California Edison (“SCE”) service area.

Although the Academy agrees with SCE’s dire assessment in its Phase Two testimony regarding coastal Santa Barbara County’s vulnerability to a foreseeable and imminent transmission outage,¹ the Academy disagrees that refurbishment of the Ellwood Plant is a reasonable solution to alleviate the region’s reliability issues. At best, the refurbishment of the Ellwood plant would be a band-aid solution, supplying local capacity only under these dire and exceptional circumstances. Indeed, due to the strict air quality limits on its annual hours of operation, the Ellwood plant would not even be able to operate continuously for more than 400 hours² (assuming no prior operations) during an extended transmission outage, thereby making it a resource of limited value even in the event of such a catastrophic outage.

Furthermore, SCE’s Phase 2 testimony concerning safety issues related to Short Circuit Duty (“SCD”) system requirements³ highlight the fact that the Ellwood facility would likely need to run continuously on a 24-hour basis in order to provide such services in the event of a major failure to the 200 kV line on which the Santa Barbara ENA is dependent. Under such a scenario, and assuming that there have been no prior operational hours expended in the given year, the Ellwood facility would only be able to run for 16 days and 16 hours before exceeding its permitted limits. Although SCE would be able to apply for an emergency variance from the Santa Barbara County Air Pollution Control District in such an event, such an emergency variance would only be effective for 30

¹ SCE Phase 2 Testimony, at pp. 7-11.

² Exhibit NRG-7, p. 2, Section 2.b.

³ RT, at pp. 791-805.

days,⁴ although the likelihood is that the repair of a major transmission line failure would require many months of effort in order to bring the transmission line back into service. SCE's witness Gary Chinn admitted as much.⁵

SCE also fails to address another scenario that could lead to extended operation of the Ellwood Plant: increased load and insufficient capacity in areas outside of the Santa Barbara ENA, that would result in a deficiency of capacity available to the Santa Barbara ENA. Under this scenario, plant operations and emission impacts at Ellwood could exceed permitted limits, especially during the summer months when system overloads from energy shortages are likely to occur in warmer, inland regions of SCE's expansive service area.

However, absent these emergency scenarios, and based on its past operating history, the Ellwood Plant will likely only operate a few hours each year to provide power during critical peak periods, resulting in an extremely low capacity factor and high cost per MWh generated. In the interim period between outages, the plant will basically lay fallow, each non-operational month passing with no value provided to ratepayers other than the insurance of continuous plant operations during extended outage periods, with attendant GHG and particulate emission impacts to adjacent schools, residences and businesses during that time.

Therefore, over the proposed 10-year contract period, Ellwood's refurbishment costs cannot be justified on an operational basis and must instead be justified on the need for system resiliency (*i.e.*, the ability to provide emergency power should the transmission line fail).⁶ Furthermore, although the proposed contract is for 10 years, the refurbishment cost contemplates a 30-year extension

⁴ See, Late-Filed Joint Exhibit SCE/NRG-1, E-Mail Attachment 2, page 5.

⁵ RT, at p.843, lines 13-23.

⁶ It is unfortunate that SCE's testimony frames area needs only in terms of resiliency, implying a return to the status quo, which will guarantee another outage at some point. What is actually needed is system reliability through the development of local DERs, which will reduce reliance on grid energy and will preclude outages from transmission line failures.

of its operation. Therefore, ratepayers would only receive one-third of the benefit conferred from the cost of plant refurbishment. To adequately provide for ratepayer needs, SCE needs to increase long-term system reliability through development of local renewable distributed energy resources ("DERs").

Assuming SCE honors its commitment to pursue additional local DERs to the system⁷, it is likely that the plant will retire much earlier than originally contemplated, leaving a significant percentage of the unused refurbishment cost as a stranded asset. A more likely scenario involves SCE putting Santa Barbara ENA needs on the “back burner” following the proposed refurbishment, satisfied that its most urgent liability exposure has been adequately insured through the plant’s continued operation. This perception is evident in SCE’s testimony, where it limits its commitment to conducting RFO solicitations “if necessary,” monitoring “SCE customer program development, solar adoption in the area, overall trends in forecasted load and the deployment of acquired resources” and “seeking input from local communities.”⁸

As SCE fully knows from its participation in scores of policy hearings⁹ seeking to advance distributed energy goals, the time for tepid and passive action has long passed, especially for an area that has had systemic reliability deficiencies for decades.

In view of the limitations explicitly acknowledged in SCE’s testimony, coastal Santa Barbara county is ideally suited to benefit from a distributed energy solution that will not only relieve communities of uncertainty regarding system reliability, but will also reduce the need to develop large generation facilities in

⁷ SCE Phase 2 Testimony, at p. 14, lines 5-10.

⁸ SCE Phase 2 Testimony, at p. 13, lines 10-18.

⁹ See, Commission dockets on Distributed Resource Plans (R14-08-013), Integrated Distributed Energy Resources (R 14-10-003), Integrated Resource Planning (R16-02-007) and a [joint agency “roadmap” workshop to Commercialize Microgrids](#) are just a few examples of the high priority placed by the California Governor, Legislature and regulatory agencies on the rapid development of DERs.

Oxnard, a community in neighboring Ventura County whose property values and quality of life has suffered due to the operation of large, adjacent natural gas power plants since the 1950s.

Moreover, in its testimony, SCE touts the “modest” cost of the Ellwood Plant refurbishment in comparison with other GFG offers in the area. Although exact figures are redacted, SCE tells us: “in terms of cost competitiveness, there is no current opportunity for new GFG resources to provide greater value than the Ellwood Refurbishment contract.”¹⁰ However, SCE unnecessarily limits its discussion of solutions to “GFG resources,” when it should be taking a proactive approach in developing clean, non-GHG-emitting DERs that will provide continuous benefits over a 25-to-30-year useful lifespan.

While SCE’s numerous “least cost” references clearly include monetary considerations, there appears to be no inclusion into its cost calculus of health and aesthetic impacts to the adjacent Ellwood community, particularly to school children attending Ellwood Elementary School located less than 1,000 yards from the plant, should the plant be required to operate beyond its permitted capacity during an extended outage. In discussions with SCE representatives, the Academy has requested that relocation of affected students and residents be included as part of emergency plans during an outage, but SCE has not indicated whether such measures will be taken in an extended outage scenario. The Academy believes that the cost of such measures, taken to preserve quality of life for ratepayers, must be included when considering the total cost from the proposed refurbishment.

Similarly, SCE limits its commitment towards improving distribution infrastructure to traditional electrical system upgrades such as the re-conductoring of existing 66kV sub-transmission lines. By taking such a narrow approach, SCE misses an opportunity to transform an isolated, highly vulnerable portion of its service area into a reliable, resilient system of distributed energy, which would be

¹⁰ SCE Phase 2 Testimony, at p. 15, lines 17-19.

consistent with the stated goal of numerous proceedings before this Commission and other state agencies and is inherent in the Commission's Loading Order and California's emission reduction goals.

Instead of forcing ratepayers to pay for an asset that exists only as an emergency backstop against transmission line failure and that will likely remain unused for most (if not all) of its contract term, a more reasonable strategy would be for SCE to invest in utility-scale energy storage facilities that not only serve as a source of synchronous generation (when properly configured), but will also provide other ancillary services while also allowing for accelerated development of DERs similar to those being deployed by SCE in Los Angeles and Orange counties in response to the closure of the Aliso Canyon natural gas storage facility and San Onofre Nuclear Generating Station ("SONGS"). Such energy storage assets can be sited throughout the distribution system in the Santa Barbara ENA and would be utilized 24 hours a day, seven days a week, to provide multiple, "stacked" value streams from a variety of resilience and reliability ancillary services as part of a permanent distributed energy system.

II. THE PROPOSED PROCUREMENT OF 0.5 MW OF STORAGE IS INSUFFICIENT

For the immediate near term, the small capacity of the proposed storage project is reasonable in that there has not been much penetration to date by intermittent renewable resources in the Santa Barbara ENA. However, the scale of penetration by renewable resources in the Santa Barbara ENA can reasonably be expected to ramp up dramatically as local communities become aware of the fragile state of the local transmission and distribution grid. Assuming a comprehensive strategy and coordinated outreach campaign is developed that culminates in a large and extensive convening of local stakeholders, electricity customers in this area will be eager to participate in a more reliable and resilient distributed energy solution. This significant increase in demand for renewable

generation will, in turn, require much larger procurements of storage and distributed generation for the Santa Barbara ENA in subsequent LCR proceedings.

SCE well knows that the Santa Barbara area, widely known as one of the primary flash points for the environmental movement, will not accept additional GFG resources to generate local energy in the long term, which is why they are proposing to refurbish the 40-year old Ellwood Generating Station (a plant with a very sparse operational history) as an insurance policy against the likely prospects of a long-term outage caused by natural events such as wildfires, mudslides and high winds.

Until recently, local awareness of these vulnerable conditions has been limited to isolated meetings between SCE officials and local representatives as part of standard Local Capacity Requirements ("LCR") protocols. To the Academy's knowledge, SCE has conducted no serious discussions among all interested local stakeholders concerning opportunities to permanently solve this energy reliability problem through widespread development of DERs. However, as knowledge of the area's latent energy fragility becomes more widespread, local governments, residents and businesses will actively seek to develop renewable DERs as a permanent solution to the systemic flaws created by SCE's constricted service area boundaries and the geographic obstacles presented by the Pacific Ocean and the adjacent coastal mountain range.

As an organization with a long-term history of engagement in Santa Barbara, the Academy is confident that the Santa Barbara community, if given the opportunity, will whole-heartedly embrace development of local, distributed renewable energy resources as part of a larger plan to bring energy reliability to the area.

III. THE CURRENT ELLWOOD CONTRACT

Pursuant to SCE's Phase 2 Testimony, the existing contract with NRG is

operational through May 2018.¹¹ The Academy is confident that with a more streamlined and coordinated effort similar in nature to that executed as part of its Preferred Resources Pilot project and in response forecast shortages resulting from the Aliso Canyon closure, significant DERs can be put in place at or near to the Ellwood facility at or around its currently scheduled shutdown date.

IV. CURRENT UNMET RELIABILITY NEED IN THE GOLETA AREA

In its testimony, SCE states that “[t]he Santa Barbara/Goleta area is a unique geographic area located in the most westerly part of the SCE service territory. This area is relatively isolated as it is bound by the Pacific Ocean to the south and west, and the Los Padres National Forest to the north and east.”¹² What SCE doesn’t mention is that the most limiting boundary is not geographic, but instead results from the termination of SCE’s service area just inland of the adjacent coastal mountain range. It is this constricted service area boundary that makes coastal Santa Barbara County a virtual “energy peninsula” that can only accommodate one point of transmission access. As currently configured, there is no other alternate means of delivering energy to the area other than developing advanced DERs located adjacent to load centers.

Because SCE’s service area does not allow for a secondary energy path that provides complete reliability, a partial solution is offered in the 66 kV sub-transmission lines that interconnect at the Carpinteria substation. Unfortunately, a significant portion of these sub-transmission lines run parallel to the primary transmission line along the same right-of-way and could be rendered inoperable by the same natural events that are listed as foreseeable threats. An example of this vulnerability was made clear in the May, 2016 “Edison” fire in Ventura, which

¹¹ SCE Phase 2 Testimony, at p. 3, Footnote 7.

¹² SCE Phase 2 Testimony, at p. 7, lines 15-17.

could have threatened both lines if higher winds had been present.¹³ In this regard, note the logistical challenges associated with SCE's transmission system in Ventura County, "in an area that has more than a dozen 220-volt Edison transmission lines, making fighting the blaze complicated" and the related statement issued by VCFD Capt. Mike Lindbery:

"Our fire crews will not attack a fire within 100 feet of these lines if it is putting up a large plume of smoke into the lines. So what we have to do is wait for that fire to move out under those lines until we get after it and that makes it a little more difficult because it can lead to fire spread, but the potential for electrocution of firefighters is just way too dangerous under these things."¹⁴

It is therefore obvious that under slightly different circumstances, in which high winds allowed the fire to spread westward and up the mountain along both the transmission and sub-transmission line pathways, firefighters would be forced to allow the fire to "burn out" underneath the lines, thereby increasing the possibility of multiple failures to both the transmission and sub-transmission lines.

SCE further acknowledges that in the event of a transmission outage, there currently would be a shortage of 185MW in relation to peak load conditions, and after a planned upgrade of alternate sub-transmission lines in 2018, there would still be a shortfall of 105 MW, approximately twice the rated capacity of the Ellwood Plant.¹⁵ SCE has also testified that it would take "several weeks" to repair any fallen lines, and in El Nino rain conditions, repair operations might not commence until "several weeks" after rains had subsided in order for the ground to support equipment needed to make the repairs. According to SCE Testimony,

"[t]he loss of a single 230 kV tower would remove both lines from service and may require construction crews to wait until the terrain

¹³ See, "[Edison Fire](#)," Cal Fire Incident Information. See Also "[Brush fire near Ventura 60 percent contained at 20 acres](#)," Ventura County Star, May 12, 2016. See Also "[Slideshow: Edison Fire Burning in Ventura County](#)," KEYT.com, May 12, 2016.

¹⁴ See also, "[Edison Fire Fully Contained in Ventura Foothills](#)," KEYT.com, May 13, 2016.

¹⁵ SCE Phase 2 Testimony, at pp. 2-3, lines 20-23, 1-2.

stabilized to safely repair or replace the tower, reconnect any damaged lines, and re-energize the system. SCE estimates that it could take several weeks until the terrain could be deemed dry and stable enough to support the heavy equipment associated with tower repair or replacement activities. After the terrain is deemed stable enough to support repairs, more time would be required to complete the actual work, prolonging the timeframe that customers located within the Santa Barbara/Goleta area would be subject to rotating outages.”¹⁶

Most tellingly, SCE notes that:

“[t]he loss of the Goleta-Santa Clara 230 kV transmission lines is also referred to as an N-2 contingency. The N-2 of the Goleta-Santa Clara 230 kV lines is compliant with the North American Electric Reliability Corporation (“NERC”) Reliability Standard TPL-001-4, which allows customer load to be dropped without a stated timeframe for restoration.”¹⁷ (Emphasis added.)

This contingency classification underscores the tremendous uncertainty regarding the cumulative impacts to the affected region following a transmission outage and the need for the rapid development of local energy generation and storage facilities as a permanent solution to current systemic deficiencies derived from traditional infrastructure and technologies.

The indefinite and opaque nature of outage scenarios leaves the very plausible prospect of an outage scenario in southern Santa Barbara County extending over many months, in which the Ellwood Plant, in order to both provide 24-hour Short Circuit Duty service while also partially filling an energy shortage of 185MW (or 105MW following a 2018 upgrade of the sub-transmission system), would need to run continuously in a densely populated area. The current contract with NRG caps annual hours of operation at 400 hours per year.¹⁸ Thus, a waiver from otherwise applicable air quality requirements would unquestionably be

¹⁶ SCE Phase 2 Testimony, at pp. 8-9, lines 10-15, 1-2.

¹⁷ SCE Phase 2 Testimony, at p. 2, Footnote 6.

¹⁸ Exhibit NRG-7, p. 2, Section 2.b.

needed in order to adequately address these system requirements over such an extended time period.

It is also unfortunate that SCE's testimony frames area needs only in terms of resiliency, implying a return to the status quo, which will guarantee another outage at some point. What is actually needed is system reliability through the development local DERs, which will reduce reliance on grid energy and will preclude outages from transmission line failure.

At a minimum, the amount of capacity needed to insure continuous service during a transmission outage is 105MW, assuming that the Ellwood Plant operates through the balance of its existing contract and that the "traditional" system upgrades described by SCE are completed on a timely basis.

The Academy has reviewed the Goleta 230KV/66KV distribution system, and based on that review, is confident that a sufficient amount of renewable energy can be installed on existing government and commercial rooftops and parking lots, and that utility-scale storage facilities can be sited either on-site (*i.e.*, adjacent to new DER installations) or at existing substations within the Santa Barbara ENA in a manner that will insure reliability both on a short and long-term basis. Obviously, such alternative resources will require a larger investment than the proposed Ellwood PPA with NRG, but a holistic analysis, including monetary and health/aesthetic impacts, as well as offsetting revenue opportunities and LCR reduction in adjacent areas such as Oxnard, will show that such an investment is the most reasonable course towards a permanent solution to the area's systemic reliability deficiencies.

V. THE BEST WAY TO MEET GOLETA'S RELIABILITY NEEDS

SCE proposes a three-pronged "integrated mitigation strategy" incorporating the addition of "cost-competitive DERs" and "traditional electric system

upgrades,” with the refurbished Ellwood Plant as its “cornerstone.”¹⁹ SCE also claims that the alternate 66kV sub-transmission system could not operate safely absent Ellwood’s function as a synchronous generator to provide SCD services. What SCE does not mention is that this approach only contemplates need in the event of a transmission outage, while the development of utility-scale storage would not only satisfy the area’s emergency needs, but it would also enable accelerated development of DER generation that would continuously provide for local capacity needs.

In this regard, SCE states:

“Traditional electrical system upgrades, such as re-conductoring the 66 kV subtransmission facilities so that SCE can reroute 180 MW to the Santa Barbara/Goleta area instead of 100 MW, will provide substantive improvements by increasing available capacity and SCD. Further re-conductoring of 66 kV facilities could increase the available capacity and SCD to serve the Santa Barbara/Goleta area. Additional upgrades of SCE’s subtransmission system in the area also are potential solutions that SCE plans to evaluate against DER procurement to determine the least-cost and best-fit options for the area.”²⁰

Unfortunately, SCE’s proposed strategy still results in primary reliance on imported grid energy, either via transmission or sub-transmission lines, with a “cornerstone” component placed on the operation of an aging, inefficient, GFG peaker plant located in a densely populated area. In order to provide true energy reliability, SCE must take the lead in proactively designing a distributed energy system that can collect, store and generate power from local renewable resources such as solar energy and biogas from waste treatment facilities.

The Academy is convinced that the reliability issues facing the Santa Barbara ENA are at least as urgent as those facing ratepayers in Los Angeles and Orange counties, and that rapid development of DERs in Santa Barbara should

¹⁹ SCE Phase 2 Testimony, pp.12-13, lines 22-23, 1-2.

²⁰ SCE Phase 2 Testimony, p. 13, lines 19-25.

merit an approach similar to that taken with respect to the closures of the Aliso Canyon Natural Gas Storage Facility and SONGS. Both projects feature expedited development of DERs, with some storage projects scheduled for completion as early as this coming December.²¹

Ranbir Sekhon, SCE Director of Portfolio Planning and Analysis, testified under cross-examination that pursuant to a study prepared for SCE by the Clean Coalition in connection with the Orange County area identified in its Preferred Resources Pilot RFO:

“In that study, we identified up to 90 megawatts of solar -- feasible technical potential in solar on household roofs. We identified an additional 50 to 60 megawatts on car parks and multi-story car parks and just regular car parks through that technical study.

"When we actually ran the first PRP RFO, DG RFO soliciting bids, we received all of 5 megawatts in terms bids."²²

In defense of this lackluster result, Mr. Sekhon points to decreased feasibility resulting from upgrade costs associated with the relative age of certain rooftops and the requirement to conduct seismic studies for solar installations on parking lots.²³ He also stated that:

“We did a tremendous amount of outreach through that RFO reaching out to property owners, developers, and facilitating them to go out and visit these sites. You know, we shared that report publicly on our web site letting people know, here is what we have identified, here are the areas that we've identified it in so that developers have that information available to them to go and then market and try and get those, secure those rights.”²⁴

²¹ See, Commission [Resolution E-4791](#); See also, Bade, Gavin, “[SCE taps Tesla for 80 MWh storage project to deal with Aliso Canyon gas shortage](#),” Utility Dive, September 16, 2016 and “[Powin Energy developing a 2 MW energy storage unit in California](#),” PV Magazine, September 13, 2016.

²² RT, at p. 942, line 21, to p. 943, line 2.

²³ RT, at p. 943, lines 7-13.

²⁴ RT, at p. 945, lines 5-16.

Similarly, at a roundtable discussion hosted by SCE and the Santa Barbara Community Environmental Council,²⁵ SCE executives stressed that in connection with the PRP RFO, efforts were made to “knock on doors” of property owners identified in the study to notify them of the pilot project and related opportunity to develop solar PV resources.

What appears to be missing from SCE’s PRP RFO implementation strategy is a well-coordinated convening of governmental, business and citizen stakeholders that outlines the need for DERs, the numerous benefits associated with owning DERs and most importantly, the remaining issues that can be resolved through local activism that can facilitate DER deployment and maximize the benefits from DER ownership and operation.²⁶ The Academy believes that if such stakeholders had been engaged as partners in a comprehensive strategy, stakeholder participation in the PRP RFO would have been much higher.

The Academy understands that under current PUC regulations, utilities such as SCE are constrained as to the activities they may engage in while soliciting bids. However, such constraints should not preclude full participation in the development of a strategy to facilitate DER penetration in a manner complementary to the existing and proposed distribution infrastructure of a given area. Such participation is critical in order to successfully evolve from the current centralized hierarchy where IOUs are granted full autonomy and sovereignty in matters related to energy infrastructure development.

²⁵ See, Community Environmental Council Facebook Page: “This morning, the [Community Environmental Council \(CEC\)](#) facilitated a conversation between [Southern California Edison \(SCE\)](#) and local stakeholders on SCE’s Goleta/Santa Barbara Resiliency Plan. SCE welcomed feedback on their plan to refurbish the Ellwood gas-fired “peaker” plant as an energy reserve in case of local power loss. CEC and other local thought leaders encouraged SCE to examine all options for local energy security, highlighting preferred energy sources, such as [#solar](#), storage, energy efficiency, and micro-grid strategies.” (<https://www.facebook.com/CECSB/posts/10154290366573292>)

²⁶ For example, if current seismic study requirements concerning parking lot installations are unduly burdensome, then local representatives can play a crucial role in streamlining such requirements.

Furthermore, it is the failure of IOUs to fully engage local communities that has given rise to the accelerating adoption of CCA entities by various counties and cities within California, as such CCA entities allow for communities to have a much greater voice in how they purchase energy and/or develop DERs that is the case under the existing regulated utility model.

Unlike Orange County, which has multiple alternate pathways to acquire additional grid energy, the Santa Barbara ENA does not have the ability to fully rely on grid energy to maintain system reliability and resiliency. Thus, until a plan to develop local DERs is developed and implemented for the Santa Barbara ENA, local ratepayers will always live under the specter of an extended outage from transmission (and/or sub-transmission) line failure. This reality magnifies the need for a coordinated, strategic effort by both SCE and local communities.

VI. A NEW RFO IS NEEDED

The Academy believes that given the area's long-standing vulnerability to transmission outages, a special, expedited RFO process, similar to those enacted in connection with the closure of Aliso Canyon and SONGS, should be immediately convened in order to identify DERs that can be quickly developed within the next eighteen (18) months. Unlike in the previous RFO that led to this proceeding, the Academy urges SCE to take a "hands on" approach" in disclosing to the community the urgent need to develop local DERs as a long-term solution to the area's overreliance on grid energy supplied by a single transmission line.

The Academy believes that the lessons learned and methods used in the PRP Project in Orange County (initiated in 2013) need to be applied now in the Santa Barbara ENA. In particular, there is very high potential for DER deployment in Goleta, specifically along the commercial/industrial/tech corridor located along Hollister Avenue. This area features relatively new distribution infrastructure consisting of 16kV distribution circuits capable of hosting significant amount of

DERs.²⁷ Indeed, in a recent article, SCE CEO Pedro Pizarro specifically commented on the need to upgrade older 4kV circuits to 16kV as a precondition to DER adoption. With 16kV circuits already in place in Goleta, the objective of accelerated DER development in that community will be greatly simplified.²⁸

The advantages of DER development in this area are two-fold: (i) there is a high concentration of businesses with “mission critical” operations that require reliable delivery of energy; and (ii) the Isla Vista substation is located approximately 2.5 miles from the Goleta substation, which currently distributes all energy received from the 230kV transmission lines to substations throughout the distribution system. Attached to the Academy's Reply to SCE's Data Request, SCE-WBA 001 (which was entered into the record herein as the first part of Exhibit WBA-5), is an aerial photo outlining a potential “Phase 1” deployment of solar PV and storage resources in the Goleta area, where solar energy could be generated, stored and managed, both on-site and at the substation level, allowing for distribution of excess energy to other areas within the distribution system.²⁹ System upgrades for bi-directional energy flow could be limited to this area, as energy distribution using traditional infrastructure could be used once excess generated energy is received at the Goleta substation. Furthermore, development of advance monitoring technologies necessary for bi-directional energy flows may reduce and/or eliminate the need for SCD services that require a central point of synchronous generation to maintain system awareness.

²⁷ According to SCE's [DERiM website](#), circuits connected to the Isla Vista substation located near the corner of Hollister and Storke Avenues, list “Integration Capacity Generation” amounts of between six (6) and ten (10) MW, and in all cases, the site notes that “Interconnection studies in this area have identified adequate deliverability.”

²⁸ *See*, Pyper, Julia, [“New Edison International CEO Pizarro Calls for Greater Grid Investment to Enable Change,”](#) GreenTechMedia, October 20, 2016.

²⁹ This image only identifies those properties located immediately adjacent to the Isla Vista substation, and there are many other properties capable of hosting significant solar PV generation outside the framed area.

With cooperation and encouragement by SCE, the Academy is convinced that many stakeholders in this area would gladly participate in a plan to develop local renewable resources, which will not only insulate their businesses from outages, but will also provide potential revenue streams both from the local sale of excess energy and from the provision of much needed ancillary services to the distribution grid. Furthermore, if enough stakeholders are engaged, resource acquisition could be aggregated to achieve cost reductions through economies of scale. Lastly, as utility-scale storage capacity would be needed at substations, particularly the Goleta substation, SCE would be the primary provider of storage-related services to ratepayers and could include the costs of providing such services (including the rate-basing of new SCE-owned facilities) in their 2018 general rate case.³⁰

Can this deployment be accomplished by May of 2018? Clearly, the possibility of success will seriously diminish the longer meaningful action is delayed. One example of what can be accomplished is seen in the unprecedented and accelerated deployment by SCE in response to the closure of the Aliso Canyon natural gas storage facility.³¹ When that facility was closed in December 2015, the Commission issued an emergency directive in May of 2016, and there are now numerous storage projects scheduled for completion by the end of 2016. In order for California to achieve its GHG reduction goals, the pace of deployment issued in response to Aliso Canyon must become the standard, not the exception, and such an approach is appropriate in dealing with the severe energy constraints in the Santa Barbara ENA.

Finally, the Academy would note that in anticipation of an all-resources RFO to be initiated on a date to be determined during the first quarter of 2017, SCE has scheduled a broad vendor and stakeholder "Goleta Area RFO

³⁰ See, "2018 SCE General Rate Case Overview," at www.edison.com.

³¹ See "[Blackouts looming, California speeds battery deployment after Aliso Canyon gas leak](#)," Utility Dive, August 11, 2016.

Collaboration Workshop" for December 13. In view of SCE's apparent commitment to move forward to engage the community on the Santa Barbara ENA on the topic of developing DERs in that community, it behooves this Commission to disapprove the proposed contract with NRG for the Ellwood refurbishment, and, rather, to direct SCE to conduct a new RFO, focused on GHG-free distributed resources, to be initiated as quickly as possible, and to be carried out in an accelerated fashion, such as SCE was able to do in response to the Aliso Canyon closure.

CONCLUSION

In view of the arguments set forth above, the proposed Ellwood refurbishment should not be approved under any circumstances. Rather, any continued operation of the Ellwood Plant should be procured on an annual or other short-term basis through the Commission's annual Resource Adequacy procurement process, with a view towards retirement of the plant at the earliest feasible date. Refurbishment costs (if any) should be adjusted downward towards this reality, instead of pursuing a repair regimen that would allow the plant to potentially operate for an additional 30 years.

As indicated above, the proposed .5MW storage component is not objectionable as such, but given the likelihood of increased system needs for such resources, SCE should be planning for a significant increase in storage capacity in Santa Barbara County, to scale up contemporaneously with the need for an accelerated development of solar (and possibly wind, and even tidal) generation in the Santa Barbara area. Moreover, this new storage capacity should be strategically located to manage planned excess generation during the day for use in the early evening hours.

The primary concern of the Academy in this proceeding is that approval of the proposed Ellwood Plant refurbishment will result in the needs of coastal Santa Barbara county being placed on the "back burner," as SCE turns its attention to

other matters within its expansive service area. However, unlike SCE's much larger service territories in Los Angeles and Orange counties, the western “finger” of the Moorpark Sub-Area does not have the luxury of alternate energy pathways, and the urgent need for long-term reliability within this area must be acknowledged, honored *and most importantly, acted upon* in order for SCE to fulfill its public trust obligations. Refurbishment of the Ellwood Plant goes a long way towards satisfying SCE’s liability concerns, but such a project will do essentially nothing to relieve the needs of local ratepayers in the long term.

Moreover, local ratepayers (particularly those working, studying and living next to the Ellwood Plant) will be paying a health and quality of life cost as a result of in SCE’s antiquated and superficial approach about how to address the pressing reliability challenge posed by the existing configuration of the Santa Barbara ENA. As LCR requirements increase across SCE’s service area, the likelihood of Ellwood operating at or above its maximum capacity (per the contract with NRG) will increase drastically. However, in order to truly serve the ratepayers of the Santa Barbara ENA, SCE needs to “put its money where its mouth is” and quickly develop advanced DERs that provide reliable energy to local ratepayers each and every day of the expected useful life of such resources without degrading ratepayers’ quality of life. Moreover, the development of such DERs will reduce the need to develop GFG resources in Oxnard and other disadvantaged areas that have been saddled for decades with providing energy to other areas at the expense of their health and quality of life.

In sum, the Ellwood refurbishment is a band-aid that will soon start peeling off the wound once LCR needs in the Santa Barbara ENA increase with increased adoption of all-electric vehicles and other non-GHG load sources in the area. For this reason, State agencies, including this Commission, need to stop proposing strictly “least cost” solutions for an area that has been needlessly compromised due to the state’s arbitrary placement of service area boundaries, and start

authorizing the utilities under its jurisdiction to make long overdue investments in the area's long-term needs. These investments will not only directly benefit the Santa Barbara ENA, but will also indirectly provide relief to Oxnard and other disadvantaged communities, who should also start receiving the benefits of DERs sooner than later.

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Respectfully submitted,

A handwritten signature in cursive script, reading "Laurence G. Chaset".

By:

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